

C. Stroup

RECEIVED

AUG 17 2000

Page 1 of 19

TECH CENTER 1600/2900

1633

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/300,959

DATE: 08/03/2000

TIME: 12:03:39

Input Set : A:\Za35191.app

Output Set: N:\CRF3\08032000\I300959.raw

ENTERED

3 <110> APPLICANT: Zanetti, Maurizio  
5 <120> TITLE OF INVENTION: Somatic Transgene Immunization and Related Methods  
7 <130> FILE REFERENCE: P-ZA 3519  
9 <140> CURRENT APPLICATION NUMBER: US 09/300,959  
10 <141> CURRENT FILING DATE: 1999-04-27  
12 <150> PRIOR APPLICATION NUMBER: US 60/083,154  
13 <151> PRIOR FILING DATE: 1998-04-27  
15 <160> NUMBER OF SEQ ID NOS: 42  
17 <170> SOFTWARE: PatentIn Ver. 2.1  
19 <210> SEQ ID NO: 1  
20 <211> LENGTH: 27  
21 <212> TYPE: DNA  
22 <213> ORGANISM: Mus musculus  
24 <400> SEQUENCE: 1  
25 aaggcctact ctcatggtat ggactac 27  
28 <210> SEQ ID NO: 2  
29 <211> LENGTH: 30  
30 <212> TYPE: DNA  
31 <213> ORGANISM: Artificial Sequence  
33 <220> FEATURE:  
34 <223> OTHER INFORMATION: Description of Artificial Sequence: mutant heavy  
35 chain complementarity determining region 3(CDR3)  
37 <400> SEQUENCE: 2  
38 aagggtaccct actctcatgg tatggactac 30  
41 <210> SEQ ID NO: 3  
42 <211> LENGTH: 48  
43 <212> TYPE: DNA  
44 <213> ORGANISM: Artificial Sequence  
46 <220> FEATURE:  
47 <223> OTHER INFORMATION: Description of Artificial Sequence: mutant heavy  
48 chain complementarity determining region 3(CDR3)  
50 <400> SEQUENCE: 3  
51 gtaccccaatg caaaccacaa tgcaaaccca aatgcaaacc cagtaccc 48  
54 <210> SEQ ID NO: 4  
55 <211> LENGTH: 4  
56 <212> TYPE: PRT  
57 <213> ORGANISM: Plasmodium falciparum  
59 <400> SEQUENCE: 4  
60 Asn Ala Asn Pro  
61 1  
64 <210> SEQ ID NO: 5  
65 <211> LENGTH: 422  
66 <212> TYPE: DNA  
67 <213> ORGANISM: Artificial Sequence  
69 <220> FEATURE:  
70 <223> OTHER INFORMATION: Description of Artificial Sequence: genomic VDJ  
71 region

RAW SEQUENCE LISTING                      DATE: 08/03/2000  
 PATENT APPLICATION:    US/09/300,959              TIME: 12:03:39

Input Set : A:\Za35191.app  
 Output Set: N:\CRF3\08032000\I300959.raw

```

73 <400> SEQUENCE: 5
74 gacgtgaagc tggtaggagtc tgggggaggc ttagtgaagc ttggagggtc cctgaaactc 60
75 tcctgtgcag cctctggatt cactttcagt aggtattaca tgtcttgggt tcgccagact 120
76 ccagagaaga ggctggagtt ggtcgagcc attaatagta atggtggtag cacctactat 180
77 ccagacactg tgaagggccg attcaccatc tccagagaca atgccaaaaa caccctgtac 240
78 ctgcaaatga gcagtctgaa gtctgaggac acagccttgt attactgtgc aagaaaggta 300
79 cctactctc atggtatgga ctactgggt caaggaacct cagtcaccgt ctctcagggt 360
80 aagaatggcc tctccaggtc tttattttta acctttgtta tggagtttc tgagcattgc 420
81 ag 422
84 <210> SEQ ID NO: 6
85 <211> LENGTH: 422
86 <212> TYPE: DNA
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: Description of Artificial Sequence: genomic VDJ
91 region
93 <400> SEQUENCE: 6
94 gacgtgaagc tggtaggagtc tgggggaggc ttagtgaagc ttggagggtc cctgaaactc 60
95 tcctgtgcag cctctggatt cactttcagt aggtattaca tgtcttgggt tcgccagact 120
96 ccagagaaga ggctggagtt ggtcgagcc attaatagta atggtggtag cacctactat 180
97 ccagacactg tgaagggccg attcaccatc tccagagaca atgccaaaaa caccctgtac 240
98 ctgcaaatga gcagtctgaa gtctgaggac acagccttgt attactgtgc aagaaaggta 300
99 cctactctc atggtatgga ctactgggt caaggaacct cagtcaccgt ctctcagggt 360
100 aagaatggcc tctccaggtc tttattttta acctttgtta tggagtttc tgagcattgc 420
101 ag 422
104 <210> SEQ ID NO: 7
105 <211> LENGTH: 419
106 <212> TYPE: DNA
107 <213> ORGANISM: Artificial Sequence
109 <220> FEATURE:
110 <223> OTHER INFORMATION: Description of Artificial Sequence: genomic VDJ
111 region
113 <400> SEQUENCE: 7
114 gacgtgaagc tggtaggagtc tgggggaggc ttagtgaagc ttggagggtc cctgaaactc 60
115 tcctgtgcag cctctggatt cactttcagt aggtattaca tgtcttgggt tcgccagact 120
116 ccagagaaga ggctggagtt ggtcgagcc attaatagta atggtggtag cacctactat 180
117 ccagacactg tgaagggccg attcaccatc tccagagaca atgccaaaaa caccctgtac 240
118 ctgcaaatga gcagtctgaa gtctgaggac acagccttgt attactgtgc aagaaaggcc 300
119 tactctcatg gtatggacta ctggggcaca ggaacctcag tcaccgtctc ctgaggtaag 360
120 aatggcctct ccaggtcttt atttttaacc tttgttatgg agttttctga gcattgcag 419
123 <210> SEQ ID NO: 8
124 <211> LENGTH: 419
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial Sequence
128 <220> FEATURE:
129 <223> OTHER INFORMATION: Description of Artificial Sequence: genomic VDJ
130 region
132 <400> SEQUENCE: 8
133 gacgtgaagc tggtaggagtc tgggggaggc ttagtgaagc ttggagggtc cctgaaactc 60

```

RAW SEQUENCE LISTING                      DATE: 08/03/2000  
 PATENT APPLICATION: US/09/300,959        TIME: 12:03:39

Input Set : A:\2a35191.app  
 Output Set: N:\CRF3\08032000\I300959.raw

```

134 tcctgtgcag cctctggatt cactttcagt aggtattaca tgtcttgggt tcgccagact 120
135 ccagagaaga ggtctggagtt ggtcgtagcc attaatagta atggtggtag cacctactat 180
136 ccagacactg tgaagggccg attcaccatc tccagagaca atgccaaaaa caccctgtac 240
137 ctgcaaatga gcagtctgaa gtctgaggac acagccttgt attactgtgc aagaaaggcc 300
138 tactctcatg gtatggacta ctgggggtcaa ggaacctcag tcaccgtctc ctcaggtaag 360
139 aatggcctct ccaggtcttt atttttaacc tttgttatgg agttttctga gcattgcag 419
142 <210> SEQ ID NO: 9
143 <211> LENGTH: 12
144 <212> TYPE: PRT
145 <213> ORGANISM: Plasmodium falciparum
147 <400> SEQUENCE: 9
148 Asn Ala Asn Pro Asn Val Asp Pro Asn Ala Asn Pro
149 1 5 10
152 <210> SEQ ID NO: 10
153 <211> LENGTH: 36
154 <212> TYPE: DNA
155 <213> ORGANISM: Artificial Sequence
157 <220> FEATURE:
158 <223> OTHER INFORMATION: Description of Artificial Sequence:
159 complementarity determining region 2 (CDR2)
161 <400> SEQUENCE: 10
162 aatgcaaacc caaatgtaga tcccaatgcc aaccca 36
165 <210> SEQ ID NO: 11
166 <211> LENGTH: 36
167 <212> TYPE: DNA
168 <213> ORGANISM: Artificial Sequence
170 <220> FEATURE:
171 <223> OTHER INFORMATION: Description of Artificial Sequence:
172 complementarity determining region 3(CDR3)
174 <400> SEQUENCE: 11
175 aatgcaaacc caaatgcaaa cccaaatgca aaccca 36
178 <210> SEQ ID NO: 12
179 <211> LENGTH: 62
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Description of Artificial Sequence:
185 complementarity determining region 3 (CDR3)
187 <400> SEQUENCE: 12
188 aaggtaccg cttccaatga aaatatggag actatggaat caagtacact tgtaccctac 60
189 tc 62
192 <210> SEQ ID NO: 13
193 <211> LENGTH: 14
194 <212> TYPE: PRT
195 <213> ORGANISM: Influenza virus
197 <400> SEQUENCE: 13
198 Ala Ser Asn Glu Asn Met Glu Thr Met Glu Ser Ser Thr Leu
199 1 5 10
202 <210> SEQ ID NO: 14

```

RAW SEQUENCE LISTING                      DATE: 08/03/2000  
 PATENT APPLICATION: US/09/300,959        TIME: 12:03:39

Input Set : A:\Za35191.app  
 Output Set: N:\CRF3\08032000\I300959.raw

```

203 <211> LENGTH: 48
204 <212> TYPE: DNA
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence:
209     oligonucleotide
211 <400> SEQUENCE: 14
212 gtaccgctt ccaatgaaaa tatggagact atggaatcaa gtacactt      48
215 <210> SEQ ID NO: 15
216 <211> LENGTH: 11
217 <212> TYPE: PRT
218 <213> ORGANISM: MUC-1 tumor antigen
220 <400> SEQUENCE: 15
221 Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
222   1           5           10
225 <210> SEQ ID NO: 16
226 <211> LENGTH: 11
227 <212> TYPE: PRT
228 <213> ORGANISM: Artificial Sequence
230 <220> FEATURE:
231 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
232     peptide
234 <400> SEQUENCE: 16
235 Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro
236   1           5           10
239 <210> SEQ ID NO: 17
240 <211> LENGTH: 12
241 <212> TYPE: PRT
242 <213> ORGANISM: MUC-1 tumor antigen
244 <400> SEQUENCE: 17
245 Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala Pro
246   1           5           10
249 <210> SEQ ID NO: 18
250 <211> LENGTH: 24
251 <212> TYPE: DNA
252 <213> ORGANISM: Mus musculus
254 <400> SEQUENCE: 18
255 ttcgatgtcc ataccatgag agta      24
258 <210> SEQ ID NO: 19
259 <211> LENGTH: 24
260 <212> TYPE: DNA
261 <213> ORGANISM: Mus musculus
263 <400> SEQUENCE: 19
264 ttcagcacct actatccaga cact      24
267 <210> SEQ ID NO: 20
268 <211> LENGTH: 24
269 <212> TYPE: DNA
270 <213> ORGANISM: Homo sapiens
272 <400> SEQUENCE: 20

```

RAW SEQUENCE LISTING                      DATE: 08/03/2000  
 PATENT APPLICATION:    US/09/300,959        TIME: 12:03:39

Input Set : A:\2a35191.app  
 Output Set: N:\CRF3\08032000\I300959.raw

```

273 ttcctcttct gcgtgtagtg gttg                24
276 <210> SEQ ID NO: 21
277 <211> LENGTH: 24
278 <212> TYPE: DNA
279 <213> ORGANISM: Homo sapiens
281 <400> SEQUENCE: 21
282 ttcataatgc caagacaaag ccgc                24
285 <210> SEQ ID NO: 22
286 <211> LENGTH: 23
287 <212> TYPE: DNA
288 <213> ORGANISM: Mus musculus
290 <400> SEQUENCE: 22
291 ttattgagaa tagaggacat ctg                23
294 <210> SEQ ID NO: 23
295 <211> LENGTH: 21
296 <212> TYPE: DNA
297 <213> ORGANISM: Mus musculus
299 <400> SEQUENCE: 23
300 atgctcagaa aactccataa c                21
303 <210> SEQ ID NO: 24
304 <211> LENGTH: 23
305 <212> TYPE: DNA
306 <213> ORGANISM: Mus musculus
308 <400> SEQUENCE: 24
309 aacagtattc ttcttttgca tgg                23
312 <210> SEQ ID NO: 25
313 <211> LENGTH: 21
314 <212> TYPE: DNA
315 <213> ORGANISM: Artificial Sequence
317 <220> FEATURE:
318 <223> OTHER INFORMATION: Description of Artificial Sequence:
319     oligonucleotide
321 <400> SEQUENCE: 25
322 atgctcataa aactccataa c                21
325 <210> SEQ ID NO: 26
326 <211> LENGTH: 22
327 <212> TYPE: DNA
328 <213> ORGANISM: Artificial Sequence
330 <220> FEATURE:
331 <223> OTHER INFORMATION: Description of Artificial Sequence:
332     oligonucleotide
334 <400> SEQUENCE: 26
335 aacagtattc ttcttttgca gc                22
338 <210> SEQ ID NO: 27
339 <211> LENGTH: 20
340 <212> TYPE: DNA
341 <213> ORGANISM: Artificial Sequence
343 <220> FEATURE:
344 <223> OTHER INFORMATION: Description of Artificial Sequence:

```

VERIFICATION SUMMARY                      DATE: 08/03/2000  
PATENT APPLICATION:    US/09/300,959      TIME: 12:03:40  
  
Input Set : A:\2a35191.app  
Output Set: N:\CRF3\08032000\I300959.raw